

EQUATIONS AND INEQUALITIES

CHEAT SHEET - A

Name _____

Date _____ Pd _____

SOLVING EQUATIONS

Use **INVERSE OPERATIONS** to **UNDO** the equation.

- undo addition or subtraction
- undo multiplication or division
- isolate the variable
- check your work

$$\begin{array}{r} 6x = 36 \\ \underline{6} \quad \underline{6} \\ x = 6 \\ 6(6) = 36 \end{array}$$

inequalities

SAME STEPS as
SOLVING EQUATIONS!

- To check your work, choose a value that is within the constraints of the inequality and plug in the number.
- If it is correct, then you should get a true statement.

GRAPH the inequality statement on a number line to represent **THE POSSIBLE SOLUTIONS**.



VALUE IS INCLUDED



VALUE IS NOT INCLUDED

graphing inequalities

CHECK ✓

$$2x > 20$$

$$x > 10$$

$$2(11) > 20$$

$$22 > 20$$

INEQUALITY VOCABULARY

- Remember that each term can represent a different inequality symbol when writing inequalities.

<	≤	≥	>	=
<ul style="list-style-type: none"> • less than • is fewer than • is smaller than • below 	<ul style="list-style-type: none"> • less than or equal to • maximum • at most • is not more than • is not greater than 	<ul style="list-style-type: none"> • greater than or equal to • minimum • at least • is not less than • is not smaller than 	<ul style="list-style-type: none"> • greater than • is more than • is larger than • above 	<ul style="list-style-type: none"> • equal • is • same

- Determine what is being solved for and choose a variable (number of rides, number of feet, etc).
- Determine the result of the situation (total cost, total height, difference in weight, etc).

\$3 per person	=	total cost
3x		75

15 miles	+	x miles	=	total distance
15		x		24

- If it is not equal, then use the appropriate inequality symbol.

Writing equations & inequalities